

SCORE Search Results Details for Application 09961086 and Search Result 20080917_142917_us-09-961-086a-1.rapbn.

Score Home	Retrieve Application	SCORE System	SCORE	Comments /
Page	List	Overview	FAQ	Suggestions

This page gives you Search Results detail for the Application 09961086 and Search Result 20080917_142917_us-09-961-086a-1.rapbn.

[Go Back to previous page](#)

GenCore version 6.2.1

Copyright (c) 1993 - 2008 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: September 18, 2008, 22:10:55 ; Search time 14 Seconds
(without alignments)
156.476 Million cell updates/sec

Title: US-09-961-086A-1
Perfect score: 3352
Sequence: 1 MSSSNVEVFIPVSGNTNGF.....MIVIFLTIAYLKLLFLKKYS 655

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 18219 seqs, 3344526 residues

Total number of hits satisfying chosen parameters: 18219

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_New:*
1: /ABSS/Data/CRF/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
2: /ABSS/Data/CRF/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
3: /ABSS/Data/CRF/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
4: /ABSS/Data/CRF/ptodata/1/pubpaa/US12_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

%
Result Query

No.	Score	Match	Length	DB	ID	Description
1	227.5	6.8	294	3	US-11-524-363-3579	Sequence 3579, Ap
2	227.5	6.8	294	3	US-11-801-901A-3579	Sequence 3579, Ap
3	221.5	6.6	252	3	US-11-524-363-5117	Sequence 5117, Ap
4	221.5	6.6	252	3	US-11-801-901A-5117	Sequence 5117, Ap
5	221	6.6	233	3	US-11-524-363-2753	Sequence 2753, Ap
6	221	6.6	233	3	US-11-801-901A-2753	Sequence 2753, Ap
7	206.5	6.2	378	3	US-11-524-363-3524	Sequence 3524, Ap
8	206.5	6.2	378	3	US-11-801-901A-3524	Sequence 3524, Ap
9	204.5	6.1	209	3	US-11-524-363-3396	Sequence 3396, Ap
10	204.5	6.1	209	3	US-11-801-901A-3396	Sequence 3396, Ap
11	203.5	6.1	242	3	US-11-524-363-2985	Sequence 2985, Ap
12	203.5	6.1	242	3	US-11-801-901A-2985	Sequence 2985, Ap
13	203	6.1	336	3	US-11-524-363-3027	Sequence 3027, Ap
14	203	6.1	336	3	US-11-801-901A-3027	Sequence 3027, Ap
15	201.5	6.0	215	3	US-11-524-363-2846	Sequence 2846, Ap
16	201.5	6.0	215	3	US-11-801-901A-2846	Sequence 2846, Ap
17	199	5.9	353	3	US-11-524-363-4827	Sequence 4827, Ap
18	199	5.9	353	3	US-11-801-901A-4827	Sequence 4827, Ap
19	196.5	5.9	297	3	US-11-524-363-3131	Sequence 3131, Ap
20	196.5	5.9	297	3	US-11-801-901A-3131	Sequence 3131, Ap
21	195.5	5.8	244	3	US-11-524-363-2710	Sequence 2710, Ap
22	195.5	5.8	244	3	US-11-801-901A-2710	Sequence 2710, Ap
23	195	5.8	1325	3	US-11-596-106A-12	Sequence 12, Appl
24	192.5	5.7	623	3	US-11-524-363-3324	Sequence 3324, Ap
25	192.5	5.7	623	3	US-11-801-901A-3324	Sequence 3324, Ap
26	192	5.7	236	3	US-11-524-363-3215	Sequence 3215, Ap
27	192	5.7	236	3	US-11-801-901A-3215	Sequence 3215, Ap
28	191.5	5.7	213	3	US-11-524-363-3603	Sequence 3603, Ap
29	191.5	5.7	213	3	US-11-801-901A-3603	Sequence 3603, Ap
30	191	5.7	581	3	US-11-524-363-3011	Sequence 3011, Ap
31	191	5.7	581	3	US-11-801-901A-3011	Sequence 3011, Ap
32	190.5	5.7	246	3	US-11-524-363-4464	Sequence 4464, Ap
33	190.5	5.7	246	3	US-11-801-901A-4464	Sequence 4464, Ap
34	188.5	5.6	317	3	US-11-524-363-4111	Sequence 4111, Ap
35	188.5	5.6	317	3	US-11-801-901A-4111	Sequence 4111, Ap
36	188	5.6	511	3	US-11-524-363-2684	Sequence 2684, Ap
37	188	5.6	511	3	US-11-801-901A-2684	Sequence 2684, Ap
38	184.5	5.5	246	3	US-11-524-363-4567	Sequence 4567, Ap
39	184.5	5.5	246	3	US-11-801-901A-4567	Sequence 4567, Ap
40	182.5	5.4	461	3	US-11-524-363-2826	Sequence 2826, Ap
41	182.5	5.4	461	3	US-11-801-901A-2826	Sequence 2826, Ap
42	182	5.4	264	3	US-11-524-363-3729	Sequence 3729, Ap
43	182	5.4	264	3	US-11-801-901A-3729	Sequence 3729, Ap
44	181.5	5.4	213	3	US-11-524-363-4973	Sequence 4973, Ap
45	181.5	5.4	213	3	US-11-801-901A-4973	Sequence 4973, Ap

ALIGNMENTS

RESULT 1

US-11-524-363-3579

```

; Sequence 3579, Application US/11524363
; Publication No. US20080194004A1
; GENERAL INFORMATION:
; APPLICANT: Doucette-Stamm, Lynn
; APPLICANT: Bush, David
; APPLICANT: Zeng, Qiandong
; APPLICANT: Opperman, Timothy
; APPLICANT: Houseweart, Chad Eric
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: 3687.1000-032
; CURRENT APPLICATION NUMBER: US/11/524,363
; CURRENT FILING DATE: 2006-09-20
; PRIOR APPLICATION NUMBER: US 11/027,892
; PRIOR FILING DATE: 2004-12-30
; PRIOR APPLICATION NUMBER: US 10/640,833
; PRIOR FILING DATE: 2003-08-14
; PRIOR APPLICATION NUMBER: US 09/583,110
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5324
; SEQ ID NO 3579
; LENGTH: 294
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-524-363-3579
    
```

Query Match 6.8%; Score 227.5; DB 3; Length 294;
 Best Local Similarity 25.2%; Pred. No. 6.8e-11;
 Matches 83; Conservative 54; Mismatches 105; Indels 87; Gaps 11;

Qy	56	RKPVEKEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAAARKDPSSGLSGDVLINGAP-R	113
	:	: : : : : :	
Db	11	KKIKDKIELRNISFEINDGECVALIGPNGAGKTLLDCLLG--DKLVTSGQVSIQGLPVT	68
Qy	114	PANFKCNSGYVVQDDVVMGTLTVRENLFQFSAALRLATMTNHEKNERINRVIQELGLDKV	173
	:	: : : : : : : : :	
Db	69	SSKLDYTRAYLPQENIIVQKLKVKELIAFFQRI-----YPNPLSNQEIDQLLQFVKQKQ-	122
Qy	174	ADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSK	233
	:	: : : : : : : : : : :	
Db	123	-----EQLAEKLSGGQKRLFSFILTLIGRPKIVFLDEPTASMTSTRQRFWEIVQELKA	176
Qy	234	QGRTIIFSIIHQPRYSIFKFLDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADF	293
	:	: : : : : :	
Db	177	QGVTIYSSHYIE-EVEHTADRILLLNKGELI-----	207
Qy	294	FLDIINGDSTAVALNREEDFK-----ATEIIEPS-----KQDKPLIE-----	330
	:	: : : : : :	

Db 208 -----RDTTPLAMRSEEIEKHFILPIAYKEVVEQSNLVENWTLKQDSLQVVTREADAFW 261

Qy 331 -----KLAEIYVN-----SSFYKETK 346
 :: || || :: ::||:

Db 262 ELLAQAGCRMQEIEVNNRSLNTIFEETQ 290

RESULT 2

US-11-801-901A-3579

; Sequence 3579, Application US/11801901A

; Publication No. US20080194505A1

; GENERAL INFORMATION

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; APPLICANT: Zeng, Qiangdong

; APPLICANT: Opperman, Timothy

; APPLICANT: Houseweart, Chad Eric

; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics

; FILE REFERENCE: 3687.1000-060

; CURRENT APPLICATION NUMBER: US/11/801,901A

; CURRENT FILING DATE: 2008-04-17

; PRIOR APPLICATION NUMBER: US 11/524,355

; PRIOR FILING DATE: 2006-09-20

; PRIOR APPLICATION NUMBER: US 11/027,892

; PRIOR FILING DATE: 2004-12-30

; PRIOR APPLICATION NUMBER: US 10/640,833

; PRIOR FILING DATE: 2003-08-14

; PRIOR APPLICATION NUMBER: US 09/583,110

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: US 09/107,433

; PRIOR FILING DATE: 1998-06-30

; PRIOR APPLICATION NUMBER: US 60/085,131

; PRIOR FILING DATE: 1998-05-12

; PRIOR APPLICATION NUMBER: US 60/051,553

; PRIOR FILING DATE: 1997-07-02

; NUMBER OF SEQ ID NOS: 5326

; SEQ ID NO 3579

; LENGTH: 294

; TYPE: PRF

; ORGANISM: Streptococcus pneumoniae

US-11-801-901A-3579

Query Match 6.8%; Score 227.5; DB 3; Length 294;

Best Local Similarity 25.2%; Pred. No. 6.8e-11;

Matches 83; Conservative 54; Mismatches 105; Indels 87; Gaps 11;

Qy 56 RKPVEKEILSNINGIMKPG-LNAILGPTGGKSSLLDVLAAKDKPSGLSGDVLINGAP-R 113
 :| :||| ||: : | :|| | ||: || | | | | |

Db 11 KIKDKELRNISFEINDGECVALIGPNGAGKTTLLDCLLG--DKLVTSGQVSIQGLPVT 68

Qy 114 PANFKCNSGYVVQDDVVMGTLTVRENLFQSAALRLATTMTNHEKNERINRVIELGLDKV 173
 : | :|::: | | : | : | :|::: | : |

Db 69 SSKLDYTRAYLPQENIIVQKLKVKELIAFFQRI-----YPNPLSNQEIQLLQFVKQK- 122

```

Qy      174 ADSKVGQTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSSTANAVLLLLKRMSK 233
      | :||::: | : || | |:|||| | :|| | :::
Db      123 -----BQLAEKLSSGGQKRLFSFILTLIGRPKIVFLDEPTASMDTSTRQRFWEIVQELKA 176

Qy      234 QGRTIIFSIHQPRYSIFKLFDLSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADF 293
      || ||:::| | : : : | | | | :
Db      177 QGVITLYSSHYIE-EVEHTADRILLNKGELI----- 207

Qy      294 FLDIINGDSTAVALNREEDFK-----ATEIIEPS-----KQDKPLIE----- 330
      |:| :|: || | | :|| | | || :
Db      208 -----RDTTPLAMRSEEIEKHFILPIAYKEVVEQSNLVENWTLKQDSLQVVTREADAFW 261

Qy      331 -----KLAIEYVN-----SSFYKETK 346
      :: || || : : :|:|:
Db      262 ELLAQAGCRMQEIEVNNRSLNLTIFEETQ 290

```

RESULT 3

US-11-524-363-5117

; Sequence 5117, Application US/11524363

; Publication No. US20080194004A1

; GENERAL INFORMATION:

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; APPLICANT: Zeng, Qiangdong

; APPLICANT: Opperman, Timothy

; APPLICANT: Houseweart, Chad Eric

; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics

; FILE REFERENCE: 3687.1000-032

; CURRENT APPLICATION NUMBER: US/11/524,363

; CURRENT FILING DATE: 2006-09-20

; PRIOR APPLICATION NUMBER: US 11/027,892

; PRIOR FILING DATE: 2004-12-30

; PRIOR APPLICATION NUMBER: US 10/640,833

; PRIOR FILING DATE: 2003-08-14

; PRIOR APPLICATION NUMBER: US 09/583,110

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: US 09/107,433

; PRIOR FILING DATE: 1998-06-30

; PRIOR APPLICATION NUMBER: US 60/085,131

; PRIOR FILING DATE: 1998-05-12

; PRIOR APPLICATION NUMBER: US 60/051,553

; PRIOR FILING DATE: 1997-07-02

; NUMBER OF SEQ ID NOS: 5324

; SEQ ID NO 5117

; LENGTH: 252

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

US-11-524-363-5117

Query Match 6.6%; Score 221.5; DB 3; Length 252;

Best Local Similarity 26.2%; Pred. No. 1.6e-10;

Matches 63; Conservative 56; Mismatches 68; Indels 53; Gaps 8;

Qy	62	EILSNNGIMKPG-LNAILGPTGGGKSSLLDVLAAARKDPFSGLSGDVLINGAPRPA---NFK	118
		: : : : : : : :	
Db	23	EALKDIHFTVEKGDYVAIMGESGSGKSTLLNILAMLDKPS--RGQVYLNGLTDTATIKNSQ	80
Qy	119	CNS-----GYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVI---QELG	169
		: : : : : : : : : : :	
Db	81	ASSFRREKLGFVFQDFNLDDLTVSKDN-----ILLPLVLSRRPITEMMKKLIVVTAENLG	134
Qy	170	LDKVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSSTANAVLLLLK	229
		: : : : : : : : : : : : : : : :	
Db	135	INQLQE-----KYPYEISGGQKQRVAVARAITEPEILLADEPTGALDSKSSAALLDVPD	189
Qy	230	RMSKQGRTIIFSIHQ-----PRYSIFKFLDLSLTLLAS	261
		: : : : : : : : : : : : :	
Db	190	EINERGOTILMVTHSTAAASRAKRVLFIKDGILYNOIYRGEKTEROMFOEISDITLTVMAS	249

RESULT 4

US-11-801-901A-5117

; Sequence 5117, Application US/11801901A

; Publication No. US20080194505A1

; GENERAL INFORMATION

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; APPLICANT:Zeng, Qiandong

; APPLICANT:Opperman, Timothy

```
; APPLICANT:Houseweart, Chad Eric
```

7; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; TITLE OF INVENTION:Pneumoniae for Diagnostics and Therapeutics

; FILE REFERENCE: 3687.1000-060

; CURRENT APPLICATION NUMBER: US/11/801,901A

; CURRENT FILING DATE: 2008-04-17

; PRIOR APPLICATION NUMBER: US 11/524,355

; PRIOR FILING DATE: 2006-09-20

; PRIOR APPLICATION NUMBER: US 11/027,892

; PRIOR FILING DATE: 2004-12-30

; PRIOR APPLICATION NUMBER: US 10/640,833

; PRIOR FILING DATE: 2003-08-14

; PRIOR APPLICATION NUMBER: US 09/583,110

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: US 09/107,433

; PRIOR FILING DATE: 1998-06-30

; PRIOR APPLICATION NUMBER: US 60/085,131

; PRIOR FILING DATE: 1998-05-12

; PRIOR APPLICATION NUMBER: US 60/051,553

; PRIOR FILING DATE: 1997-07-02

; NUMBER OF SEQ ID NOS: 5326

; SEO ID NO 5117

; LENGTH: 252

```
; TYPE: PRT
```

; ORGANISM: Streptococcus pneumoniae

US-11-801-901A-5117

Qy	62	EILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAAARKDPSGLSGDVLINGAPRPA---NFK	118
		: : : : : : : : : :	
Db	23	EALKDIHFTVEKGYDVAIMGESGSGKSTLLNILAMLDKPS--RGQVYLNGLTDTATIKNSQ	80
Qy	119	CNS-----GYVVQDDVVMGTLTVRENLQFSAAALRLATTMTNHEKNERINRVI---QELG	169
		: : : : : : : : : : :	
Db	81	ASSFRREKLGFVFQDFNLLDTLSVKDN-----ILLPLVLSRRPITEMMKKLVVTAENLG	134
Qy	170	LDKVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSSTANAVLLLLK	229
		: : : : : : : : : : : : : : : : :	
Db	135	INQLQE-----KYPYEISGGQKQRVAVARAITEPEILLADEPTGALDSKSSAALLDVPD	189
Qy	230	RMSKQGRTIIFSIHQ-----PRYSIFKFLDSDLTLLAS	261
		: : : : : : : : : : : : : :	
Db	190	EINERGOTILMVHTSHATAASRAKRVLFIKDGILYNOIYRGEKTEROMFOEISDTLTVMAS	249

; LENGTH: 233
 ; TYPE: PRT
 ; ORGANISM: Streptococcus pneumoniae
 US-11-801-901A-2753

Query Match 6.6%; Score 221; DB 3; Length 233;
 Best Local Similarity 29.8%; Pred. No. 1.6e-10;
 Matches 64; Conservative 44; Mismatches 87; Indels 20; Gaps 7;

Qy 46 VKLKSGLPCRK-PVEKEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAAARKDPFSGLS 103
 : ||: | | : ||: ||| : | ||: ||: |||: ||: : | : |
 Db 5 ISLKNIFRSYRNGDQELQVLKNINLEVNAGEFVAIMGPSGSGKSTLMNTIGMLDTPT--S 62

Qy 104 GDVLIN-----GAPRPANFKCNS-GYVVQDDVVMGTLTVRENLFQSAALRLATTMTNH 155
 |: : | : | : |:| | :: | :||: | | :
 Db 63 GEYYLEGQEVAGLGEKQLAKVRNQIGFVFQQFFLLSKLNALQNVE---LPLIYAGVSS 118

Qy 156 EKNERINRVIQELGLDKVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTG 215
 | | : | ||| : : |||: ||: | | : |||: |||
 Db 119 SK----RRKLAEEYLDKVELTERSHHLPSELSSGGKQQRVAIARALVNNPSIILADEPTGA 174

Qy 216 LDSSTANAVLLLLKRMSKQGRTIIFSIIHQPRYSIF 250
 ||: | | : || : ||: ||| |:| : :
 Db 175 LDTKTGNQIMQLLVDLNKEGKTIIMVTHEPEIAAY 209

RESULT 7

US-11-524-363-3524

; Sequence 3524, Application US/11524363

; Publication No. US20080194004A1

; GENERAL INFORMATION:

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; APPLICANT: Zeng, Qiangdong

; APPLICANT: Opperman, Timothy

; APPLICANT: Houseweart, Chad Eric

; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics

; FILE REFERENCE: 3687.1000-032

; CURRENT APPLICATION NUMBER: US/11/524,363

; CURRENT FILING DATE: 2006-09-20

; PRIOR APPLICATION NUMBER: US 11/027,892

; PRIOR FILING DATE: 2004-12-30

; PRIOR APPLICATION NUMBER: US 10/640,833

; PRIOR FILING DATE: 2003-08-14

; PRIOR APPLICATION NUMBER: US 09/583,110

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: US 09/107,433

; PRIOR FILING DATE: 1998-06-30

; PRIOR APPLICATION NUMBER: US 60/085,131

; PRIOR FILING DATE: 1998-05-12

; PRIOR APPLICATION NUMBER: US 60/051,553

; PRIOR FILING DATE: 1997-07-02

; NUMBER OF SEQ ID NOS: 5324


```
; PRIOR APPLICATION NUMBER: US 10/640,833
; PRIOR FILING DATE: 2003-08-14
; PRIOR APPLICATION NUMBER: US 09/583,110
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5326
; SEQ ID NO 3524
; LENGTH: 378
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-801-901A-3524
```

```
Query Match          6.2%; Score 206.5; DB 3; Length 378;
Best Local Similarity 22.2%; Pred. No. 3.9e-09;
Matches 76; Conservative 79; Mismatches 141; Indels 47; Gaps 13;
```

```
Qy      62 EILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAAARKDPFSGLSGDVLLINGA---PRPANF 117
      :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db      21 KVLKIDINFELEEGKFYITLLGASGSGKSTILNIIAGLLDAT--TGDIMLDGVRINDIPTN- 77

Qy     118 KCNSGYVQDDVVMGTLTVRENLFQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSK 177
      | : | | : : : | | : | | : : : | | : : : | | : |
Db     178 KRDVHTVQSYALFPHMNVFENVAFPLRLRKIDKKEIEQ RVAEVLKMQVQLEGEYK----- 132

Qy     178 VGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSSTANAVLLLLKRMSKQ-GR 236
      : | :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db     133 ---RSIRKLSGGQRQ RVAIARAIINQPRVLLDEPLSALDLKLRTDMQYELRELQORLGI 189

Qy     237 TIIFSIHQPRYSIFKLFDSTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLD 296
      | : | | : : : | : : : | : : : | : : : | : : : | : : : | : : : |
Db     190 TFVFTVDQEEAL-AMSDWIFVMNDGEIV-----QSGTPVDIYDEPINHFVA 235

Qy     297 IINGDSTAVALNREEDF-----KATEIIEPS-KQDKPLIEKLAIEYVNSSFYKETKAEL 349
      | : | : : | | : | | : | : | : | : | : : : | : : : | : : : |
Db     236 TFIGESNILPGSMIEDYLVEFNGRFEAVDGGMPNEPV-----EVVIRPEDLRLITLPEE 290

Qy     350 HQLSGGEKKKKITVFKEISYTTSFCHQL--RWVSKRSFKNLLG 390
      : | : | : : : | : | : | : | : | : | : | : | : | : | : | : |
Db     291 GKL---QVKVDTQLFRGVHYEIIAYDELGNEWMHSTRKAIVG 330
```

RESULT 9

```
US-11-524-363-3396
; Sequence 3396, Application US/11524363
; Publication No. US20080194004A1
; GENERAL INFORMATION:
; APPLICANT: Doucette-Stamm, Lynn
; APPLICANT: Bush, David
; APPLICANT: Zeng, Qiangdong
```

```

; APPLICANT: Opperman, Timothy
; APPLICANT: Houseweart, Chad Eric
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: 3687.1000-032
; CURRENT APPLICATION NUMBER: US/11/524,363
; CURRENT FILING DATE: 2006-09-20
; PRIOR APPLICATION NUMBER: US 11/027,892
; PRIOR FILING DATE: 2004-12-30
; PRIOR APPLICATION NUMBER: US 10/640,833
; PRIOR FILING DATE: 2003-08-14
; PRIOR APPLICATION NUMBER: US 09/583,110
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5324
; SEQ ID NO 3396
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-524-363-3396

```

```

Query Match          6.1%; Score 204.5; DB 3; Length 209;
Best Local Similarity 31.5%; Pred. No. 2.5e-09;
Matches 62; Conservative 42; Mismatches 72; Indels 21; Gaps 7;

```

```

Qy      60 EKEILSNIN-GIMKPGLNAILGPTGGGKSSLLDLVAARKDPSGL----SGDVLINGAPRP 114
      :|:| | | : | : : ||:|:| | |:| :| | | | : | |
Db      13 DKQILSNFSLSIPEKQILAIVGPSGGGKTTLRLMLA-----GLETIDSGQIFYNGQPLE 66

Qy      115 AN--FKCN-SGYVVQDDVVMGTLTVRENLFQSAALRLATTMTNHEKNERINRVIQELGLD 171
      : | | |:| | | : |:| | | | : | | : : : : :| |
Db      67 LDELQKRNLGLGFVQDFQLFPHLSVLENLTLSVPKTMG--MKQEEAEKKASGLLEQLGLG 124

Qy      172 KVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRM 231
      |: : : |:|:|:| : : : | | : | | | : | | : :
Db      125 GHAEA-----YFSLSGGQKQRVALARAMMIDPEIIGYDEPTSLDPELRLEVEKLILQN 179

Qy      232 SKQGRTIIFSIIHQPRYS 248
      : | | | | : : :
Db      180 RELGMTQIVVTHDLQFA 196

```

RESULT 10

US-11-801-901A-3396

```

; Sequence 3396, Application US/11801901A
; Publication No. US20080194505A1
; GENERAL INFORMATION
; APPLICANT: Doucette-Stamm, Lynn
; APPLICANT: Bush, David

```

```

; APPLICANT:Zeng, Qiangdong
; APPLICANT:Opperman, Timothy
; APPLICANT:Houseweart, Chad Eric
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
; TITLE OF INVENTION:Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: 3687.1000-060
; CURRENT APPLICATION NUMBER: US/11/801,901A
; CURRENT FILING DATE: 2008-04-17
; PRIOR APPLICATION NUMBER: US 11/524,355
; PRIOR FILING DATE: 2006-09-20
; PRIOR APPLICATION NUMBER: US 11/027,892
; PRIOR FILING DATE: 2004-12-30
; PRIOR APPLICATION NUMBER: US 10/640,833
; PRIOR FILING DATE: 2003-08-14
; PRIOR APPLICATION NUMBER: US 09/583,110
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5326
; SEQ ID NO 3396
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-801-901A-3396

```

```

Query Match          6.1%; Score 204.5; DB 3; Length 209;
Best Local Similarity 31.5%; Pred. No. 2.5e-09;
Matches 62; Conservative 42; Mismatches 72; Indels 21; Gaps 7;

```

```

Qy      60 EKEILSNIN-GIMKPLNAILGPTGGGKSSLLDLVLAARKDPSGL----SGDVLINGAPRP 114
      :|:|:|:| : | : : ||:|:|:|:|:|:| :|| || || : || |
Db      13 DKQILSNFSLSIPEKQILAIVGPGSGGKTTLLRMLA-----GLETIDSGQIFYNGQPLE 66

Qy      115 AN--FKCN-SGYVVQDDVVMGTLTVRENLFQSAALRLATTMTNHEKNERINRVIQELGLD 171
      : | | |:| || : |:| || | : | | : :: : ::|||
Db      67 LDELQKRNLGLGFVFQDFQLFPHLSVLENLTLSPVKTMG--MKQEEAEKKASGLLEQLGLG 124

Qy      172 KVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSANAVLLLLKRM 231
      |: : : :|:|:|:| : : : || : | |:| : | : :
Db      125 GHAEA-----YPFSLSGGQKQQRVALARAMMIDPEITIGYDEPTSAIDPELRLEVEKLILQN 179

Qy      232 SKQGRITIFSIIHQPRYS 248
      : | | | | : : :
Db      180 RELGMTQIVVTHDLQFA 196

```

```

RESULT 11
US-11-524-363-2985
; Sequence 2985, Application US/11524363

```

```

; Publication No. US20080194004A1
; GENERAL INFORMATION:
; APPLICANT: Doucette-Stamm, Lynn
; APPLICANT: Bush, David
; APPLICANT: Zeng, Qiangdong
; APPLICANT: Opperman, Timothy
; APPLICANT: Houseweart, Chad Eric
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: 3687.1000-032
; CURRENT APPLICATION NUMBER: US/11/524,363
; CURRENT FILING DATE: 2006-09-20
; PRIOR APPLICATION NUMBER: US 11/027,892
; PRIOR FILING DATE: 2004-12-30
; PRIOR APPLICATION NUMBER: US 10/640,833
; PRIOR FILING DATE: 2003-08-14
; PRIOR APPLICATION NUMBER: US 09/583,110
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5324
; SEQ ID NO 2985
; LENGTH: 242
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-524-363-2985

```

```

Query Match          6.1%; Score 203.5; DB 3; Length 242;
Best Local Similarity 24.9%; Pred. No. 3.6e-09;
Matches 70; Conservative 54; Mismatches 98; Indels 59; Gaps 12;

```

```

Qy      36 VLSFHNICYRVKLKSGFLPCRKPVEKEILSNINGIMKPG-LNALIGPTGGGKSSLLDVL 94
      : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
Db      1 MIEYKNVALRY-----TEKDVLRDVLNQLIEDGEFVLVGPSSGSKTTLMKIN 48

Qy      95 ARKDPSGLSGDVLINGAP----RPAFNCNSGYVVDVVMGTLTVRENLFSAALRLAT 150
      : : | : : : | : : : | : : | : | : | : | : | : | : | : |
Db      49 RLLEPT--DGNIYMDGKRKIDYDERELRLSTGYVLQATIALFPNLTVAE-----IALIP 100

Qy      151 TMTNHEKNERINRVIQELGLDKVA--DSKVGTFQIRGVSGGERKRTSIGMELITDPSILF 208
      | | | : : | | | : : | : : | : | : | : | : | : | : |
Db      101 EMKGWSK-EEITKKTEEL-LAKVGLPVAEYGHRLPSELSSGGEQQRVGIVRAMIGQPKILL 158

Qy      209 LDEPTTGLDSSSTANAVLLLLKRMSKQ-GRTIIFSIIHQPRYSIFKLFDSLTLLASGRLMFH 267
      : : | : | : : : : | : : | : | | | | : : | : | : : | : |
Db      159 MDEFFSALDAISRKQLQVLTKELHKEFGMTTFIVTHDTDEAL-KLADRIAVLQDGEI--- 214

Qy      268 GPAQEALGYFESAGYHCEAYNNP-----ADFFLDIING 300
      : : | : | : | : | : | : | : | : | : | : | : | : |
Db      215 -----RQVSNPETILKAPATDFVADLF 238

```



```

; Sequence 3027, Application US/11524363
; Publication No. US20080194004A1
; GENERAL INFORMATION:
; APPLICANT: Doucette-Stamm, Lynn
; APPLICANT: Bush, David
; APPLICANT: Zeng, Qiandong
; APPLICANT: Opperman, Timothy
; APPLICANT: Houseweart, Chad Eric
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: 3687.1000-032
; CURRENT APPLICATION NUMBER: US/11/524,363
; CURRENT FILING DATE: 2006-09-20
; PRIOR APPLICATION NUMBER: US 11/027,892
; PRIOR FILING DATE: 2004-12-30
; PRIOR APPLICATION NUMBER: US 10/640,833
; PRIOR FILING DATE: 2003-08-14
; PRIOR APPLICATION NUMBER: US 09/583,110
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5324
; SEQ ID NO 3027
; LENGTH: 336
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-524-363-3027

```

Query Match 6.1%; Score 203; DB 3; Length 336;
Best Local Similarity 26.4%; Pred. No. 6.1e-09;
Matches 94; Conservative 63; Mismatches 139; Indels 60; Gaps 20;

Qy 64 LSNIN-GIMKPLNAILGPTGGGKSSLLDLVAARKDPSLGSQDVLINGAP---RPA¹¹⁸
:|:| |: |||: |||: | | || | |: || | |

Db 17 IDNLNLDIHGEFFTF¹⁷LGPSCGCKSTTLRALVGF¹⁷LDPS--SGSIEVNGTDVTHLEPE--K 72

Qy 119 CNSGYVVQDDVVMGTLTVREN¹¹⁹LQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKV 178
| | | | | : | : | : | : | : | : | : | : |

Db 73 RGI⁷³GVPOSYALFTMTVFDNIAFGLKVKKVAPDVIKAK---VS⁷³AVA⁷³KI---KIS⁷³DOOL 126


```

Qy      179 GTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSSKQ-GRT 237
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db      127 -QRNVSELSGGQQQRVALARALVLEPKILCLDEPLSNLDAKLRVLDLRKELKRLQKELGIT 185

Qy      238 IIFSIHQPRYSIFKLFDLSLTLLASGRL-MFHGPAQEALGYFESAGYHCEAYNNP-----A 291
      : : | : : : : : : : : : : : : : : : : : : : : : : :
Db      186 TLYVTHDQE-----EALTL--SDRIAVFNN-----GYIEQVGTPEVIYHNSQTQFVC 230

Qy      292 DFFLDI-INGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELH 350
      || || : || | | | : || : || : || : || : || : || :
Db      231 DFIGDINVLTDQTV---HEVLLKNTSVFLEDKKGYIRLEKV-----RFNRETEQDF- 278

Qy      351 QLSGGEKKKKITVFKEISYTTSFCHQLRWVSKRSFKNLLG-NPQASIAQIIVTVVL 405
      | | : : : : : | || : | : : || : : : | |
Db      279 ILKG-----TII-DVEFGVTTIHYTIKVSQILNVTSIDSQAIRSVGESVEL 326

```

RESULT 14

US-11-801-901A-3027

; Sequence 3027, Application US/11801901A

; Publication No. US20080194505A1

; GENERAL INFORMATION

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; APPLICANT: Zeng, Qiangdong

; APPLICANT: Opperman, Timothy

; APPLICANT: Houseweart, Chad Eric

; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics

; FILE REFERENCE: 3687.1000-060

; CURRENT APPLICATION NUMBER: US/11/801,901A

; CURRENT FILING DATE: 2008-04-17

; PRIOR APPLICATION NUMBER: US 11/524,355

; PRIOR FILING DATE: 2006-09-20

; PRIOR APPLICATION NUMBER: US 11/027,892

; PRIOR FILING DATE: 2004-12-30

; PRIOR APPLICATION NUMBER: US 10/640,833

; PRIOR FILING DATE: 2003-08-14

; PRIOR APPLICATION NUMBER: US 09/583,110

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: US 09/107,433

; PRIOR FILING DATE: 1998-06-30

; PRIOR APPLICATION NUMBER: US 60/085,131

; PRIOR FILING DATE: 1998-05-12

; PRIOR APPLICATION NUMBER: US 60/051,553

; PRIOR FILING DATE: 1997-07-02

; NUMBER OF SEQ ID NOS: 5326

; SEQ ID NO 3027

; LENGTH: 336

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

US-11-801-901A-3027

Query Match 6.1%; Score 203; DB 3; Length 336;
 Best Local Similarity 26.4%; Pred. No. 6.1e-09;
 Matches 94; Conservative 63; Mismatches 139; Indels 60; Gaps 20;

```

Qy      64 LSNIN-GIMKPLNALIGPTGGGKSSLLDLVAARKDPSSGLSGDVLINGAP---RPANFK 118
      :|:| | : |||:| ||:| | | || | | :|| | |
Db      17 IDNLNLDIHEGEFFTLFPGSGCGKSTTLRALVGFLDPS--SGSIEVNGTDVTHLEPE--K 72

Qy     119 CNSGVVQDDVVMGTLTVRENLFQSAALRLATMTNHEKNERINRVIQELGLDKVADSKV 178
      | | | : | :| :| : : : | : : | : : | :| :|
Db      73 RGIGIVFQSYALFPTMTVFDNIAFGLKVKKVAPDVIKAK---VSAAVAKI---KISDQQL 126

Qy     179 GTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQ-GRT 237
      : : : |||:| : : : | : || ||| : || : : ||| :| |
Db     127 -QRNVSELSGGQQQRVALARALVLEPKILCLDEPLSNLDAKLRLDKLKLQKELGIT 185

Qy     238 IIFSIIHQPRYSIFKLFDSLTLASGRL-MFHGPAQEALGYFESAGYHCEAYNNP-----A 291
      : : | : ||| | : :| : || | | | :|
Db     186 TLVYTHDQE-----EALTL--SDRIAVFNN-----GYIEQVGTPVEIYHNSQTEFVC 230

Qy     292 DFFLDI-INGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELH 350
      || || : | | | | : | : : || : | :| : :
Db     231 DFIGDINVLDTETV---HEVLLKNTSVFLEDKKGYIRLEKV-----RFNRETEQDF- 278

Qy     351 QLSGGEKKKKITVPFKEISYTTSFCHQLRWVSKRSFKNLLG-NPQASIAQIIIVTVVL 405
      | | | : : : : | || : : : ||| : : | |
Db     279 ILKG-----TII-DVEFSGVTIHYTIKVSQSILNWTSIDSQAAIRSVGESVEL 326

```

RESULT 15

US-11-524-363-2846

; Sequence 2846, Application US/11524363

; Publication No. US20080194004A1

; GENERAL INFORMATION:

; APPLICANT: Doucette-Stamm, Lynn

; APPLICANT: Bush, David

; APPLICANT: Zeng, Qiangong

; APPLICANT: Opperman, Timothy

; APPLICANT: Houseweart, Chad Eric

; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; TITLE OF INVENTION: Pneumonias for Diagnostics and Therapeutics

; FILE REFERENCE: 3687.1000-032

; CURRENT APPLICATION NUMBER: US/11/524,363

; CURRENT FILING DATE: 2006-09-20

; PRIOR APPLICATION NUMBER: US 11/027,892

; PRIOR FILING DATE: 2004-12-30

; PRIOR APPLICATION NUMBER: US 10/640,833

; PRIOR FILING DATE: 2003-08-14

; PRIOR APPLICATION NUMBER: US 09/583,110

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: US 09/107,433

; PRIOR FILING DATE: 1998-06-30

; PRIOR APPLICATION NUMBER: US 60/085,131

; PRIOR FILING DATE: 1998-05-12

```
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5324
; SEQ ID NO 2846
; LENGTH: 215
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-11-524-363-2846
```

```
Query Match          6.0%; Score 201.5; DB 3; Length 215;
Best Local Similarity 32.4%; Pred. No. 4.3e-09;
Matches 70; Conservative 33; Mismatches 76; Indels 37; Gaps 11;
```

```
Qy      36 VLSFHNICYRVKLKSGFLPCRKPVEKEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLA 94
      :: || :||| | :|| | | : | | | ||| | ::|
Db      4 IITLKNI--ELKLKK---TC-----VFQNLNFSCQGEIIGITGANGSGKSVLFKLLIA 51

Qy      95 ARKDPSGLSGDVLING---APR---PANFKCNSGYVVQDDVVMGTLTVRENLQFSAALRL 148
      || |:|||| | || | :|| : : :||| :|||
Db      52 GLYSPS--YGEVLINGENIVPERKIPANL---GALIEEPGFINYSGFKNLQYLASIRG 105

Qy      149 ATTMTNHEKNERINRVIQELGLDKVADSKVGTQFIRGVSSGERKRTSIGMELITDPSILF 208
      |: || :: :|| : | || | | ||| : | : :|||
Db      106 VV-----GNQEINDTLKIVGLYEQKDQKVKT-----YSLGMRKKLGIAQAIMENPSILL 154

Qy      209 LDEPTTGLD-SSTANAVLLLLKRMSKQGRITIFSIIH 243
      |||| || || | | | |:| ||: : |
Db      155 LDEPMNALDKSSVENMRTLFRKLSSEKGTTLIIASH 190
```

```
Search completed: September 18, 2008, 22:15:28
Job time : 14 secs
```

SCORE 1.0